1: Petrullo E-3 (1933-34) 1939 SS19 Yaruro SS19

411 226 237 is inserted into the reed shaft (fig. 19, *a*, *f*). The barb on the iron point is obviously more effective than on the bone point.

225 For crocodiles the arrow point is always of iron, barbed and detachable. Its length is considerably less than the other, measuring about 4 feet or less. A string about 30 feet long is attached to the point and wrapped tightly around the shaft. When the point strikes the animal the string becomes unwound and if the animal dives into the water the hunter can trace it by the shaft floating on the surface. He then proceeds to pull up the animal.

411 224 For deer and chiguire, land animals, a broad iron blade is used for the point, so heavy that one would suppose it would be a lance head. This is inserted into the shaft and at the point of insertion a crosspiece is fashioned to the shaft so that the point cannot penetrate more than 4 or 5 inches. The reason for this is that the Yaruro is afraid to lose his arrow should he fail to kill the animal and it were to run away. A barbless arrow will tend to fall out of the wound if the animal races away and then the hunter can recover it.

411 223 For birds, the bone-pointed arrows are used and sometimes a special arrow consisting of a shaft with a wooden knob. However, since birds are hunted so seldom there is very little use for special arrows.

411 ●326 412 The iron points are well made. Each man tries to possess himself of a stone and an iron hammer, but actually in the entire group that I saw, there were only two stones and one hammer. Iron is hard to obtain, and any scrap which comes into their possession is employed either as a knife or an arrow point. The iron is shaped both by hammering and by filing. I saw only one file in the group. At best, it must cause them a great deal of labor to fashion any of these points.

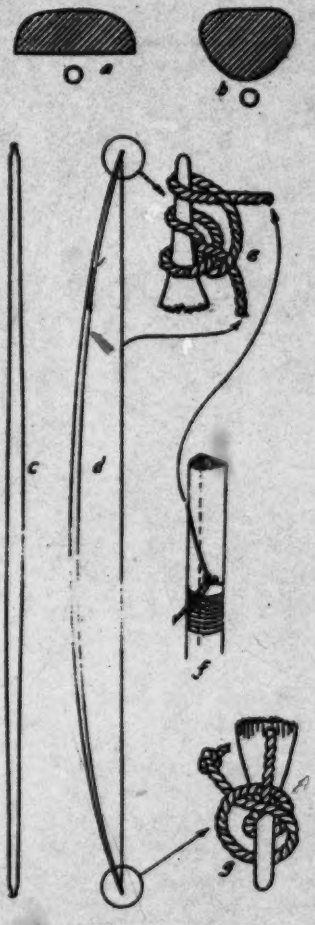

FIGURE 17. — Yaruro bows. *a*, *b*, Cross sections of bows. Circles represent original shape of wood, measuring about 7 cm before it is cut down to shape "*a*" and "*b*." *c*, *d*, Yaruro bow. One specimen measured 195 cm in length, 3.2 cm wide in cross section, 2 cm in thickness. *e*, *f*, *g*, Detail of knots on bow string.

1 [see category 116, 207 --- Analyst]

1: Petrullo E-3 (1933-34) 1939 SS19 Yaruro SS19

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Perhaps that is one reason why no man had in his possession more than three or four arrows—for the most part he had only one of the iron tip kind.

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FISHHOOKS.—Most of the fishing is done with bow and arrow, but hooks are known to the Yaruros, and when they are able to obtain strong fine string they employ these hooks. Hooks are not only em-

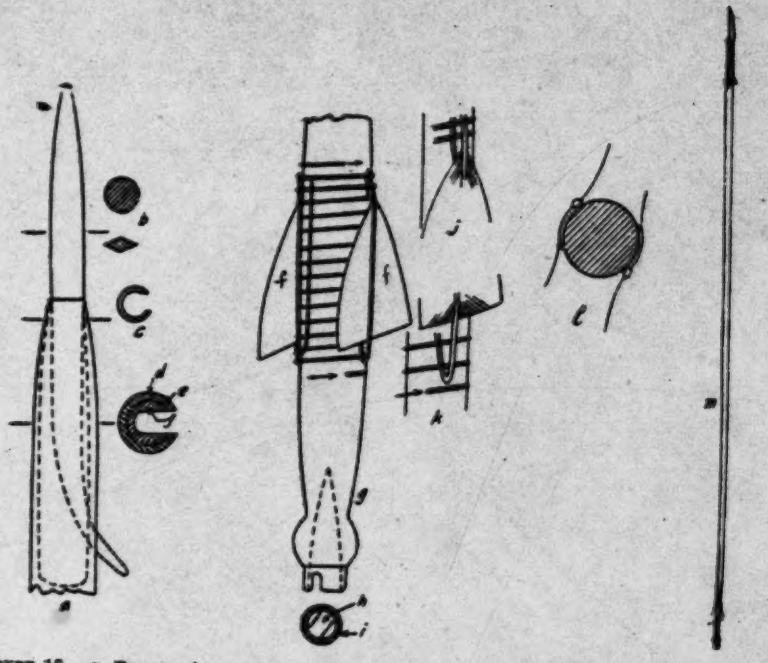

FIGURE 18.—*a*, Bone or iron point attached to shaft. *b*, Cross sections of points; round cross section is of the bone point; diamond-shaped cross section is of the iron point. *c*, Cross section of wax and twine binding. *d*, Cross section of reed shaft. *e*, Cross section of brasil wood to which point is actually fastened. *f*, Feathers. *g*, Butt end of arrow. *h*, Wooden plug nock. *i*, Reed shaft. *j*, *k*, *l*, Method of fastening feather to the arrow. *m*, Fish arrow.

ployed for fish, but even for the chiguire, and sometimes for the crocodiles. The simplest kind is that shown in figure 20, *c*, which may
[322 consist of bone or wood. It measures about 6 inches in length. A stronger point of iron or hard wood is used for the manatee. This type is shown in figure 20, *d*. For crocodiles, generally a hard stick sharpened at both ends and baited with a large piece of meat is used. The crocodiles will swallow the stick and, if it is attached to a thick wire, it makes an excellent means of capturing these beasts.

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DIGGING STICKS.—Next to the bows and arrows, the most important implement of the Yaruro is the digging stick, which will consist of a wooden handle from 3 to 4 feet long slipped into the handle of an